

WHAT IS CLAIMED IS:

1. A radio communication system which includes a base station, a plurality of terminals, an uplink which is established between the base station and each of the terminals for the purpose of radio transmission of prescribed information from a terminal to a base station, and a downlink established between each of the terminals and each of the base station for the purpose of radio transmission of prescribed data from a base station to a terminal, said radio communication system comprising:

a low-speed transmitting means, provided at said terminal, which transmits a radio signal at a relatively low transmission rate to said base station via said uplink;

a low-speed receiving means, provided at said base station, which receives a radio signal sent at a relatively low transmission rate from said terminal via said uplink;

a high-speed transmitting means, provided at said base station, which transmits a radio signal at a relatively high transmission rate to said terminal via said downlink; and

a high-speed receiving means, provided at said terminal, which receives a radio sent at a relatively high transmission rate from said base station via said downlink.

2. A radio communication system according to claim 1, having at least one each of said uplink and said downlink, each of said circuits having at least two types of radio signal transmission rates, there being at least one pair of such the uplink and downlink in which the transmission rate of one circuit is an integral multiple of the transition rate of the other.

3. A radio communication system according to claim 1, comprising:

a low-speed transmitting means, provided at said terminal, which transmits a radio signal having a radio

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frequency in a relatively low frequency band at a relatively low transmission rate to said base station via said uplink;

a low-speed receiving means, provided at said base station, which receives a radio signal of a relatively low frequency sent at a low transmission rate from said terminal via said uplink;

a high-speed transmitting means, provided at said base station, which transmits a radio signal having a radio frequency in a relatively high frequency band at a relatively high transmission rate to said terminal via said downlink; and

a high-speed receiving means, provided at said terminal, which receives a radio signal of a relatively high frequency sent at a high transmission rate from said base station to said via said downlink.

4. A radio communication system according to claim 1, wherein said high-speed transmitting means transmits a large amount of user-information data which is sent from said base station to said terminal, via said downlink by means of high-frequency-band radio signal, and further wherein said low-speed transmitting means transmits a small amount of control data which is sent from said terminal to said base station, via said uplink by means of a low-frequency-band radio signal.

5. A radio communication system according to claim 1, comprising an optimum connection station interpreting means which receives a signal for the purpose of identifying said wideband radio base station, notification of which is made from said wideband radio base station via a radio line, and which interprets from this signal said wideband radio base station that is suitable for connection, and a service starting means which starts said prescribed service via said specific wideband radio base station which is judged

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to be suitable for connection with respect to said mobile radio station.

6. A radio communication system according to claim 5, further comprising, in addition to each said means:

a means which, when said mobile radio station receives said service via an above-noted specific wideband radio base station, receives a signal for the purpose of identifying said wideband radio base station, notification of which is given via a radio line from a wideband radio base station which is different from said specific wideband radio station, and which interprets from this received signal to which wideband radio base station should switching be made;

a means by which said mobile radio station notifies said server via said narrowband radio base station of a wideband radio base station which is suitable as a switching destination; and

a means by which said server switches a connection with respect to said mobile radio station, that connection is made via said specified wideband radio base station, which is judged to be suitable as a switching destination for connection, thereby providing said prescribed service.

7. A radio communication system according to claim 1, wherein the method of modulation of the radio signal which is sent via said uplink by means of the said low-speed transmission means provided at said terminal and the method of modulation of the radio signal sent via said downlink by means of said high-speed transmission means provided at said base station are different.

8. A radio communication system according to claim 1, wherein said downlink comprises a high-speed downlink which performs radio transmission, from said base station to said terminal, of prescribed information at a high transmission

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rate and a low-speed downlink which perform radio transmission of prescribed information at a transmission rate approximately the same as said uplink, said radio communication system further comprising:

a second low-speed transmission means which transmits a radio signal to said terminal at a relatively low transmission rate, via said low-speed downlink which is provided at said base station, and

a second low-speed receiving means which receives a radio signal sent at a relatively low transmission rate from said base station, via said downlink circuit which is provided at said terminal.

9. A radio communication system according to claim 8, wherein the ratio of the transmission rate of said uplink and said low-speed downlink is such that one is an integral multiple of the other.

10. A radio communication system according to claim 8, wherein:

said low-speed transmitting means transmits to said base station a radio signal in a relatively low-frequency band via said uplink, which is provided at said terminal, at a relatively low transmission rate,

said second low-speed transmitting means transmits to said terminal a radio signal in a relatively low-frequency band via said second downlink, which is provided at said base station, at a relatively low transmission rate, and

said high-speed transmitting means transmits to said terminal a radio signal in a relatively high-frequency band via said uplink, which is provided at said base station, at a relatively high transmission rate.

11. A radio communication system according to claim 8, wherein:

said high-speed transmitting means transmits a large amount of user information from said base station to said

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terminal via said high-speed downlink by means of a radio signal in a high-frequency band,

said low-speed transmitting means transmits a small amount of control information from said terminal to said base station via said uplink by means of a radio signal in a low-frequency band, and

said second low-speed transmitting means transmits a small amount of control information and voice information from said base station to said terminal via said low-speed downlink by means of a radio signal in a low-frequency band.

12. A radio communication system according to claim 8, wherein said terminal, as a mobile radio station, comprises an optimum connection station interpreting means which receives a signal for the purpose of identifying said wideband radio base station, notification of which is made from the above-noted wideband radio base station via a radio line, and which interprets from this signal the wideband radio base station that is suitable for connection, and a service starting means which starts said prescribed service via said specific wideband radio base station which is judged to be suitable for connection with respect to said mobile radio station.

13. A radio communication system according to claim 12, further comprising, in addition to each said means:

a means which, when said mobile radio station receives said service via said specific wideband radio base station, receives a signal for the purpose of identifying said wideband radio base station, notification of which is given via a radio line from a wideband radio base station which is different from said specific wideband radio station, and which interprets from this received signal to which wideband radio base station should switching be made;

a means by which said mobile radio station notifies

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said server via said narrowband radio base station of a wideband radio base station which is suitable as a switching destination; and

a means by which said server switches a connection with respect to said mobile radio station, that connection is made via said specified wideband radio base station, which is judged to be suitable as a switching destination for connection, thereby providing said prescribed service.

14. A radio communication system according to claim 8, wherein the method of modulation of the radio signal which is sent via said uplink by means of the said first low-speed transmission means provided at said terminal and the method of modulation of the radio signal sent via said downlink by means of said high-speed transmission means provided at said base station are different.

15. A radio communication system according to claim 8, wherein the method of modulation of the radio signal on the uplink which transmits radio signal from said terminal to said base station and the method of modulation of the radio signal on the wideband downlink which transmits a radio signal from said base station to said terminal are different.

16. A radio communication system according to claim 8, wherein said narrowband uplink and said narrowband low-speed downlink transmit and receive using the same antenna at both the base station and the terminal.

17. A radio communication system according to claim 1, wherein said base station of said radio communication system is connected, via a data bus, to a data server which stores and processes given data, said data server storing and processing data for said base station, based on control information which is input to said base station from said

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terminal via said uplink.

18. A radio communication system according to claim 17, wherein said data server is formed from a plurality of means which have different function and which operate in cooperation, said plurality of means including at least a memory which serves as a database, a processor as a calculation process processing means which serves as an information amount expanding server, and a control server having a storage means and a control means.

19. A radio communication system according to claim 18, wherein said data server is a memory which provides said terminal with the prescribed information via said data bus and said base station over said downlink.

20. A radio communication system according to claim 18, wherein said base station supplies said terminal with prescribed information via said downlink in the form it is read out from said memory, said terminal performs transmission of a given processing operator and added information via said low-speed uplink for the purpose of meeting requirements, and further wherein said data server processes said prescribed information, based on said processing operator and added information sent from said base station via said data bus, generates processed data and transmits this to from said base station via high-speed downlink.

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